



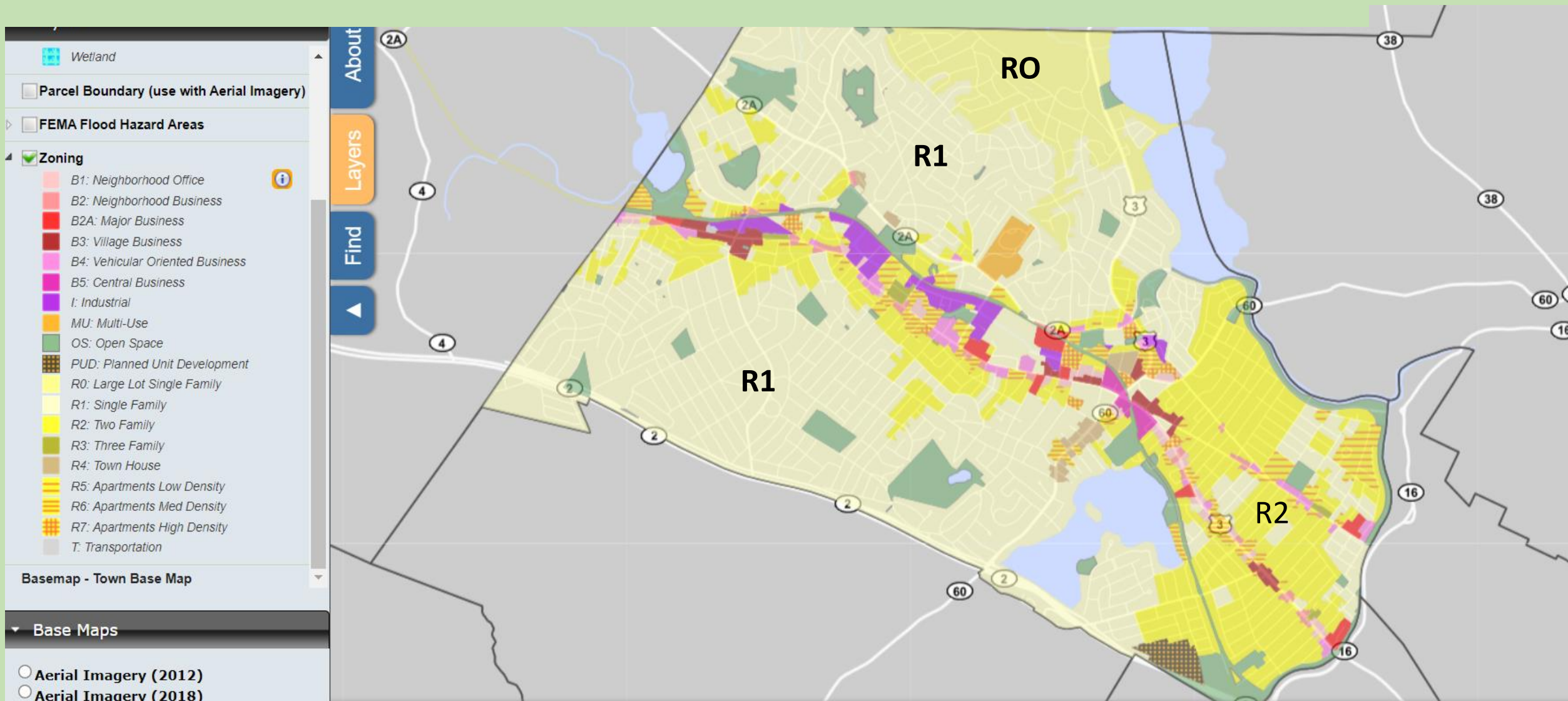
Arlington is not prepared for Article 38

NO vote on Article 38 is recommended

Mary Ellen Aronow

TMM Precinct 8

Arlington Single-family zones (R0, R1)



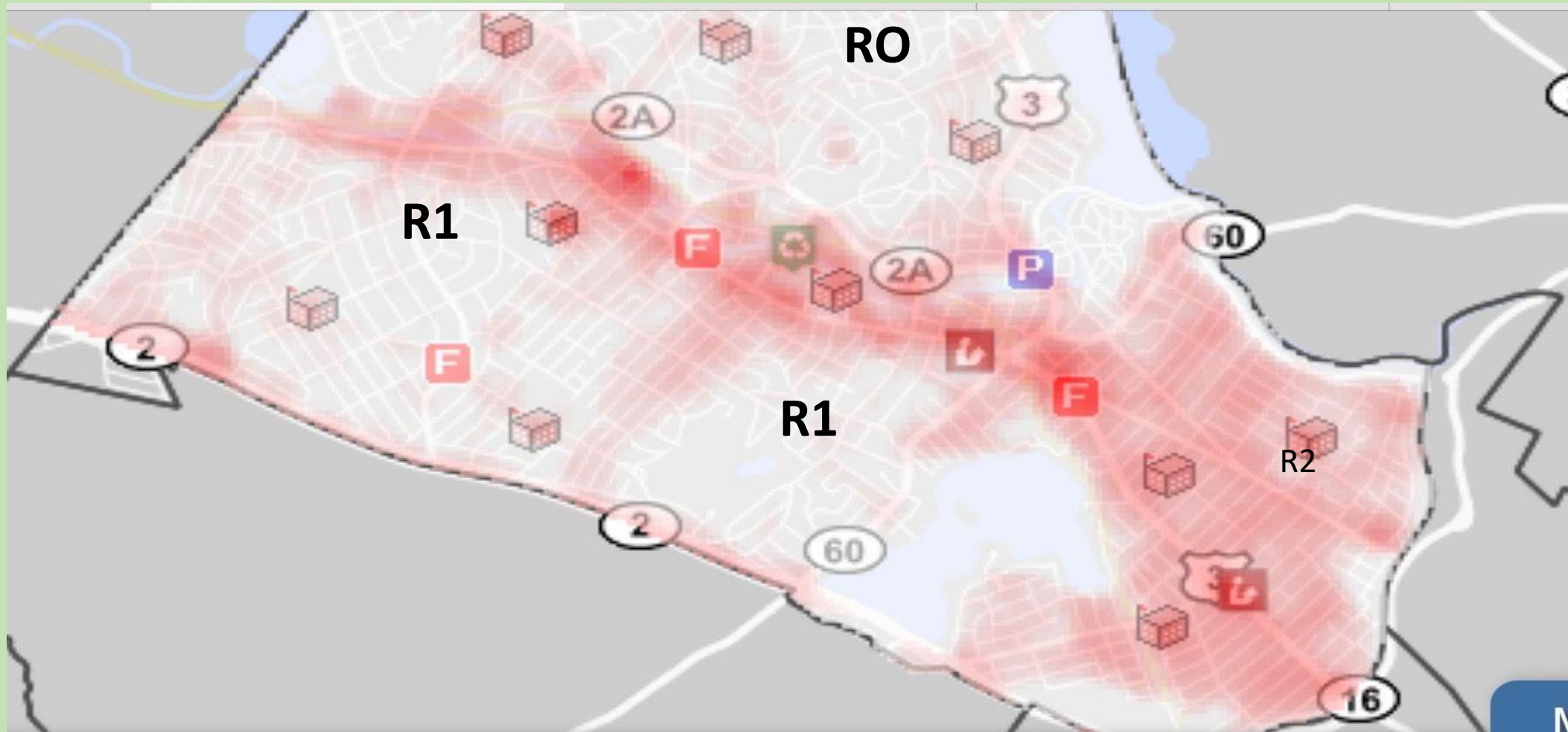
Arlington urban forest canopy research

- Dr. Lucy Hutyra from Boston University approached Arlington's tree warden at a Tree City USA event here in town in 2017 with a research idea: assess how residential landscapes can impact the urban heat island effect and impact carbon sequestration using Arlington as the case study.
- Dr. Hutyra's research used Arlington tree inventory and on site data collection as a study for heat island mapping.
- The study found that the most **densely built areas** fall within what is called **heat islands** – areas where temperature rises are perpetuated by pavement, buildings, and lower tree canopy.

Arlington Heat Map

Hottest areas are our most densely built

In areas where single family homes exist today – R1 and R0, the temperatures are moderated. Shade trees planted decades ago are providing a natural way to moderate rising temperatures as the climate is heating. Arlington has a gold mine of natural climate solutions in R1 and R0 zoned lands



The temperature of Arlington in the next century will be determined by the choices we make today

- **Trees help cool the environment**, a simple and effective way to reduce urban heat islands. Reducing the sunlight striking buildings and pavement reduces the amount of energy that is absorbed and re-radiated into the air.
- **Maintaining and expanding Arlington's tree canopy** will help Arlington be more resilient to a warming climate.
- **Trees are a natural climate solution** – taking in carbon dioxide and releasing oxygen into the atmosphere, **reducing green house gases**, and will help Arlington reach its **Net Zero goals**.
- Once buildings and pavement replace the space once occupied by trees – it has proven very **difficult to find enough room to get trees back into the ground** at those locations. **Heat islands develop.**

Before redevelopment



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After redevelopment

Removal of 7 trees and 80" of tree diameter.

Expanded footprint and curb cuts to accommodate double driveway / double front walkways leaves little room for shade trees



Before redevelopment



After redevelopment

Trading mature canopy for 1 new 1.5" public street tree



- A 1.5 to 2" caliper tree is being planted in replacement of mature shade trees removed, ranging in size 8" to upwards of 40" around.
- Arlington's tree warden is working hard to respond to the depletion of our urban forest under current zoning and the town's current tree protection bylaw. It has proven very difficult to add the expansive tree canopy back to where trees are being taken down.

The temperature of our town in the next century will be determined by the choices we make today.

Arlington is not prepared for Article 38

Thoughtful landscape architectural design and planning remodeling/rebuilding within the natural environment is not the norm under current zoning in Arlington.

Arlington's R1 and R0 zones are a gold mine of mature tree canopy

Two-family homes require 2x the curb cuts, 2 driveways, 2 walkways, leading to greater tree canopy loss and heat impacts.

Once buildings and pavement replace trees – it is very **difficult to find enough room to get trees back into the ground** at those locations. **Heat islands develop.**

A great example in Arlington
of **redevelopment around
mature trees**

